

Amendments to the Specification:

Please replace paragraph 0003 beginning at page 1, with the following rewritten paragraph:

[0003] When a loudspeaker is used ~~outdoor~~ outdoors, numerous challenges not faced in indoor use arise. The loudspeaker may be subject to the penetration by moisture, insects and debris. To counter these and other problems, it is desirable to provide a loudspeaker with a sealed enclosure that is air-tight, or substantially air-tight. Preferably, the enclosure should be at least water-tight or moisture-tight to prevent penetration of the enclosure by moisture and by other objects.

Please replace paragraph 0008 beginning at page 1, with the following rewritten paragraph:

[0008] Preferably the active ~~drive~~ driver and its surround (and other parts of the active driver that are exposed on the outside of the enclosure) provide a continuous seal across the active driver aperture. Similarly, the passive diaphragm and its suspension provide a continuous seal across the passive radiator aperture. The seals are preferably ~~airtight~~ air-tight or substantially ~~air-tight~~ air-tight seal. Alternatively, the seals are at least water-tight or moisture-tight. A quality of the seal required may be chosen depending on the degree of protection required or desired for a particular loudspeaker according to the present invention.

Please replace paragraph 0011 beginning at page 1, with the following rewritten paragraph:

[0011] The passive radiator may be tuned, by selecting the characteristics of the passive diaphragm and suspension, including their mass and dimensions. By tuning the passive radiator to a frequency below the low frequency cutoff (for example, the 3 dB cutoff) of an

identical loudspeaker without a passive radiator, the low frequency response of the loudspeaker can be extended.

Please replace paragraph 0019 beginning at page 2, with the following rewritten paragraph:

[0019] FIG. 1 is a front isometric view of a loudspeaker made in accordance with the present invention;

Please replace paragraph 0026 beginning at page 2, with the following rewritten paragraph:

[0026] FIG. 8 is a front isometric view of a mounting bracket used to mount the loudspeaker of FIG. 1 on an external support, with the mounting bracket in an unlocked state;

Please replace paragraph 0027 beginning at page 2, with the following rewritten paragraph:

[0027] FIG. 9 is a front isometric view of the mounting bracket in ~~an~~ a locked state;

Please replace paragraph 0031 beginning at page 2, with the following rewritten paragraph:

[0031] Base 104 provides a bottom 126, sides 127, 128 and a back 129 for enclosure 102. Cover 106 provides a top 130 and a front 131 for enclosure 102. The specific structure of loudspeaker 100 is only exemplary and other configurations with multiple covers and different shapes may be used. Cover 106 is mounted to base 104 using screws 132. Cover 106 is preferably mounted to base 104 with an ~~airtight~~ air-tight or substantially ~~air-tight~~ air-tight seal. Preferably, the seal between cover 106 and base 104

is at least water-tight or moisture-tight. A gasket (not shown) made ~~of~~ of rubber or another other appropriate material may be used to provide the desired seal between cover 106 and base 104.

Please replace paragraph 0032 beginning at page 2, with the following rewritten paragraph:

[0032] Active driver aperture 108 is formed on the top 130 of enclosure 102. Active driver 110 is mounted in active driver aperture 108 with a seal that is preferably air-tight or substantially air-tight, and is at least water-tight or moisture-tight. Active driver 110 preferably has an active diaphragm 134 that travels in a generally linear back-and-forth motion in active diaphragm movement direction 136 (Figure 3). Active diaphragm 134 is preferably made from a weatherproof or weather-resistant material, such as a treated paper, plastic, metal or a composite material. Active diaphragm 134 is ~~support~~ supported by a flexible surround ~~435~~ 133, which is also preferably made of a weatherproof or weather-resistant material such as rubber or plastic. Active diaphragm 134 and suspension ~~435~~ 133 are mounted so that they form a continuous seal across active driver aperture 108, ensuring that the volume within enclosure 102 remains sealed. Active driver ~~420~~ 110 has a coil 135 which controls the movement of active diaphragm 134. Coil 135 is shown only ~~if~~ in Figure 3 and is omitted in the other Figures for clarity.

Please replace paragraph 0033 beginning at page 2, with the following rewritten paragraph:

[0033] Driver ~~420-110~~ of loudspeaker 100 is provided with a sound reflector 152 that is used to reflect the sound produced by driver ~~420~~ 110 in an omni-polar sound dispersion pattern. Loudspeaker 100 also has a high-frequency driver 154 that has a corresponding sound reflector 156. An electrical signal embodying an audio signal is received at terminals 158 and 160 (shown only in Figure 3). The signal is divided into different frequency components by cross-over 162 (shown only in Figure 3) and suitable frequency

components are applied to drivers ~~420~~ 110 and 154, which produce sound waves in response. The structure and positioning of drivers ~~420~~ 110 and 154, and their corresponding sound reflectors 152 and 156 is described in co-pending U.S. application No. 10/378,087, the description of which is attached hereto as Appendix A, and which is incorporated herein by this reference. This structure and positioning are used in the OMNI™ series of loudspeakers manufactured and sold by Audio Products International Corporation.

Please replace paragraph 0035 beginning at page 7, line 5, with the following rewritten paragraph:

[0035] The omni-polar sound dispersion pattern of driver ~~420~~ 110 is not a limiting feature of the present invention. Loudspeaker 100 could alternatively be constructed without reflector 152 and without driver 154 or reflector 156. Loudspeaker 100 merely requires that an active driver ~~420~~ 110 be mounted to a sealed enclosure 102. Active driver ~~420~~ 110 could be mounted on the front 131 or any other part of enclosure 102.

Please replace paragraph 0036 beginning at page 3, with the following rewritten paragraph:

[0036] Loudspeaker 100 has a cap 121 which fits over top 130 of loudspeaker 100. Figure 1 illustrates the cap 121 lifted away from top 130. Cap 121 may be installed by any suitable means, such as friction fitting, screw, clips or other mounting or fastening means. In loudspeaker 100, cap 121 has a mounting ring 122, which may be made of rubber, plastic or other material. Ring 122 has a plurality of plugs 123 which align with and frictionally engage corresponding detents 124 in top 130. Cap 121 is preferably acoustically transparent so that it does not affect sound generated by loudspeaker 100. Preferably, mounting ring 122 provides a seal between cap 121 and top 130 in order to keep debris, insects, and any substantial amount of moisture or water away from driver

110. However, cap 121 is not part of the enclosure of loudspeaker 100, and it is not necessary to the present invention that it provides such a seal with top 130.

Please replace paragraph 0037 beginning at page 3, with the following rewritten paragraph:

[0037] Reference is made to FIGS. 3 and 4. Suspension ~~446~~ 118 has an inner edge 140 that is mounted adjacent the perimeter 142 of passive diaphragm 116 and an outer edge ~~that 144~~ that is mounted adjacent the edge 146 of passive radiator aperture 112.

Please replace paragraph 0038 beginning at page 3, with the following rewritten paragraph:

[0038] As noted above, enclosure 102 is preferably sealed air-tight or substantially air-tight. Preferably, enclosure 102 is at least water-tight or moisture-tight. Accordingly, suspension ~~446~~ 118 is sealed continuously at its inner and outer edges to passive diaphragm 116 and enclosure 102 to provide the desired degree of sealing of enclosure 102.

Please replace paragraph 0039 beginning at page 3, with the following rewritten paragraph:

[0039] Suspension ~~446~~ 118 is formed concentrically around passive diaphragm 116 and allows passive diaphragm 116 to move linearly in a back and forth motion in a passive diaphragm movement direction 150 (FIG. 3). Passive diaphragm movement direction 150 is generally normal to the surface of passive diaphragm 116. ~~Passive diaphragm~~ Passive diaphragm 116 has a slightly curved surface matching the generally curved surface of the front 131 of enclosure 102. Passive diaphragm movement direction 150 is essentially normal to the center of passive diaphragm 116, such that passive diaphragm 116 does not substantially rock from edge to edge as it moves and such that all points on

diaphragm 116 ~~as~~ are displaced linearly by essentially the same distance ~~and~~ at any particular time.

Please replace paragraph 0041 beginning at page 3, with the following rewritten paragraph:

[0041] Passive diaphragm 116 is positioned essentially or substantially centrally (i.e. concentrically) within passive radiator aperture 112. This helps to ensure that passive diaphragm 116 moves linearly in direction 150. The present invention provides a method for manufacturing loudspeaker 100 so that passive diaphragm 116 is concentrically positioned within ~~passive radiator~~ passive radiator aperture 112. The passive diaphragm may be circular or essentially circular, as in loudspeaker 100. Alternatively, the passive diaphragm may have an elliptical, oval, square, rectangular or other shape. Preferably, the passive radiator aperture has a corresponding shape and the passive radiator suspension holds the passive diaphragm in an essentially or substantially concentric or central position within the passive radiator aperture.

Please replace paragraph 0049 beginning at page 4, with the following rewritten paragraph:

[0049] Loudspeaker 100 has an enclosed volume that is sealed from the exterior of loudspeaker 100. Base 104, cover 106, active driver ~~406~~ 110 and passive radiator ~~446~~ 114 provide a continuous sealed enclosure 102. If driver ~~406~~ 110 is provided with a reflector 152 and the cavity 164 within the reflector 152 is continuous with the volume of enclosure 102, then reflector 152 and high-frequency driver 154 also assist in providing a sealed volume within enclosure 102. ~~In~~ The volume of loudspeaker 100 is thus protected from the elements, such as moisture, insects and debris, when loudspeaker 100 is used outdoors.

Please replace paragraph 0050 beginning at page 4, with the following rewritten paragraph:

[0050] Passive radiator 114 moves in direction 150 in response to the motion of active diaphragm 134 of active driver 106, substantially reducing the low frequency attenuation effects of sealing enclosure 102. Passive radiator 114 may be tuned to a selected frequency so that the low frequency response of loudspeaker 100 is extended compared to the low frequency response of an identical speaker without passive radiator ~~106~~ 114. A skilled person will be able to design the passive diaphragm 116 and suspension 118 so that passive radiator 114 is tuned to the selected frequency. Typically, the selected frequency will be slightly below the cutoff frequency for an identical loudspeaker without passive radiator 114.

Please replace paragraph 0053 beginning at page 4, with the following rewritten paragraph:

[0053] Locking plate 232 has a several locking arms 234, 236 and 238 extending from its front side ~~240~~ 241. Locking arm 234 has an "L" shaped cross section formed by an extension member 234e and a locking member 234l. Similarly, locking arm 236 has an extension member 236e and a locking member 236l and locking arm 238 has an extension member 238e and a locking member 238l.

Please replace paragraph 0054 beginning at page 4, with the following rewritten paragraph:

[0054] Locking screw 233 has a pair of flanges 250, 251 and a threaded shaft 252. The head of locking screw 233 has a slot 254 that may be engaged using a corresponding slot screwdriver to turn locking screw 233. Alternatively, locking screw 233 could have a head designed for any other type of turning tool, such as a square drive screwdriver, a Philips (cross) screwdriver, a four or six-sided nut, or an allen ~~alien~~ key. Locking screw

233 may be configured to require a special or proprietary tool to turn it, in order to prevent unauthorized persons from using locking screw 233 to remove loudspeaker 100 from mounting bracket 120.

Please replace paragraph 0056 beginning at page 4, with the following rewritten paragraph:

[0056] The front surface ~~234~~ 241 of mounting plate 230 is shaped to correspond to the shape of the back 129 of loudspeaker 100. Mounting plate 230 has four support arms 260, 262, 264 and 266. An aperture 270 extends between support arms 260 and 262 and an aperture 272 extends between support arms 264 and 266. Mounting plate 230 also has four positioning shoulders 280, 282, 284 and 286 formed at its corners. Screw holes 288 may be used to fasten mounting plate 230 to an external support.

Please replace paragraph 0058 beginning at page 4, with the following rewritten paragraph:

[0058] Locking plate 232 may be slideably positioned in a recess 268 with locking arms 234 and 236 extending through an aperture 270 and with locking arm 238 extending through aperture 272. Prior to placing locking plate 232 in mounting plate 230, locking screw 233 is rotated so that flanges 250, 251 are aligned with shoulder ~~274~~ 284 and locking arms 234 and 236 are aligned with aperture 270 and locking arm 238 is aligned with aperture 272. Mounting bracket 120 is then assembled in an unlocked position as shown in Figure 8, so that locking arms 234 and 236 are aligned with support arms 260 and 262 and locking arm 238 are aligned with support arms 264 and 266. Flanges 250, 251 engage shoulder ~~274~~ 284 to prevent locking screw 233 from moving axially relative to mounting plate 230 when mounting screw 233 is rotated. ~~When locking~~ Locking screw 233 may be rotated to move locking plate 232 between the unlocked position shown in Figure 8 and the locked position shown in Figure 9.

Please replace paragraph 0059 beginning at page 4, with the following rewritten paragraph:

[0059] Loudspeaker 100 may be mounted on mounting bracket 120 as follows. Mounting bracket 120 is assembled with locking plate 232 in its unlocked position as shown in Figure 8. Loudspeaker 100 and mounting bracket 120 are positioned so that support arms 260 and 262 and locking arms 234 and 236 are positioned in insertion channel 220i; arms 264 and 266 and locking arm 238 are positioned in insertion channel 222i; shoulders 280 and 282 are positioned in different detents 228 in row 224; and shoulders 284 and 286 are positioned in different detents 228 in row 226.

Please replace paragraph 0061 beginning at page 5, with the following rewritten paragraph:

[0061] Mounting bracket 120 allows loudspeaker 100 to be installed with a great deal of control over its direction. Mounting bracket 120 is first mounted on an external support using screws positioned in screw holes ~~280~~ 288. Loudspeaker 100 is then be positioned on mounting bracket 120 and rotated to a desired position. Locking screw ~~433~~ 233 is then used to lock loudspeaker 100 on mounting bracket 120 in the desired position.

Please replace paragraph 0062 beginning at page 13, line 28, with the following rewritten paragraph:

[0062] Mounting bracket 120 may be installed on an external support at any angle, allowing loudspeaker ~~420~~ 100 to be installed with its top and bottom directed along a vertical line, a horizontal line or at any other angle.

Please replace paragraph 0063 beginning at page 5, with the following rewritten paragraph:

[0063] In other embodiments ~~on~~ of the present invention, any number of mounting channels 222 may be formed on enclosure 102 of the loudspeaker and the mounting bracket 120 may be provided with corresponding support arms and locking arms. Similarly, the number and arrangement of detents 228 may be changed and mounting bracket 120 will be provided with shoulders in a complementary position.